

FOUR NEW SPECIES OF DRYOPIDAE, TOGETHER WITH NOTES  
ON THE FAMILY.

(Order COLEOPTERA.)

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(Plate xii.)

Since the publication of our Monograph (1) a more general interest has arisen in this family, and many friends have sent their captures from all the Eastern States. The examination of these shows a large number of individuals, but little increase in the number of species. As with other fresh-water fauna, there is a wide distribution of certain common species. Up to the present not a single example has yet been recorded from South Australia, though the streams of Mt. Lofty have been searched. In Western Australia a single specimen of *Simsonia tasmanica*, Blkb., was taken by Mr. F. Lawson Whitlock in the Preston River, Bunbury district. The extension of the Tasmanian aquatic fauna to the south-west of the continent is consonant with the affinities of certain ants quoted by Mr. John Clark. That Mr. Whitlock worked with some diligence in the streams of his region was shown by his capture of numerous minute Hydrophilidae, Dytiscidae and a new species of Georyssus. Clearly, Dryopidae are uncommon west of the Murray River. Mr. Leathom Wassell's researches around Brisbane; in the Pine River and Oxley Creek show the family to be extremely numerous. Three species, *Stenelmis pallidipes*, Cart., *Corelmis v. fasciata*, Lea., and *Austrolimnius luridus*, C. & Z., were especially common, while two new species of *Austrolimnius* have rewarded his efforts. The most interesting of the new finds is the third recorded species of *Stetholus*, taken by Mr. F. H. Taylor in the Upper Shoalhaven River. Several larvae have been examined, but no evidence of their relation to the imagines of the same district has been shown. The possessors of aquaria could carry out a valuable research in the study of the physiology and life-history of these curious beetles. Four new species are described and figured below.

*STETHOLUS LATICEPS*, n.sp.

Elongate oblong; head, prothorax and elytra subnitid brown; abdomen and underside of legs red, upper surface of legs yellow, antennae with two basal segments yellow, the rest brown.

Head very wide, eyes very large and very prominent; surface pubescent, antennae relatively longer and less transverse than in *S. elongatus*; 1st segment long, stout and curved; 2nd widely oval; 3-4 triangular, much narrower than 2nd; 5-10 of gradually increasing width; 11th longer than 10th oval. Maxillary palpi having apical segment less elongated than in *elongatus*.

Prothorax at apex much narrower than head, widest at base, thence lightly narrowing to apex, with feeble sinuations in front and behind, apical part closely embracing prosternum, hind angles somewhat explanate and subacute, base bisinuate, disc with faint transverse line at apical third, two wide longitudinal sulci at base, surface punctate, with pale pubescence especially at base and sides.

Elytra wider than prothorax at base and thrice as long; subparallel, shoulders rather prominent; striate-punctate, the striae lightly impressed,

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(1) Aust. Zool., 1929.

seriate punctures round and close, intervals flat and rather thickly punctate and pubescent.

Legs moderately long and slender, tarsi more slender than in *S. elongatus*.

Dimensions: 5 x 1.5 mm.

Habitat: New South Wales, Tallong, Upper Shoalhaven River (Mr. F. H. Taylor).

We are indebted to Mr. Taylor for 5 examples of this interesting find. It is conspecific with *S. elongatus*, C. & Z., by the characteristic short prosternum, the wide antennae and palpi. The eyes are round and extend wholly beyond the front edge of pronotum. The prothorax is rather longer and without the transverse sulcus of *elongatus*. The prosternum is wider than in that species and sparsely nodulose, its process is without a carina and bluntly rounded behind. The tibiae are grooved as if for the reception of the tarsi.

Holotype in Coll. Carter.

AUSTROLIMNIUS ATRICEPS, n.sp.

(Fig. 6.)

Elliptic, head black, prothorax, elytra and underside red, surface opaque, antennae and tarsi testaceous.

Head, eyes not prominent, forehead with sulci extending backward behind eyes.

Prothorax longer and flatter than in other species, widest behind middle, thence very lightly narrowed each way, apex emarginate, produced in middle, hind angles rectangular, wide lateral explanation delimited by carinae, the marginal one finely serrulate, medial sulcus wide, not quite reaching apex, surface lightly asperate.

Elytra obovate, margins finely serrulate, the two exterior carinae closer than in *A. politus* or *montanus*, all carinae less raised than in those species; seriate punctures close, intermediate in size between those of *politus* and *montanus*, intervals minutely wrinkled and asperate.

Prosternum longer, narrower, with more sinuate sides than in other species, its narrowed apex squarely rounded, its border raised, surface finely asperate; metasternum minutely punctate, abdomen finely pubescent.

Dimensions: 1.7 x 0.7 mm.

Habitat: S. Queensland, Pine River (Mr. Leathom Wassell).

Seven examples sent. The species is distinct, not only by colour, but by its more elongate, depressed form, different sculpture and characters indicated above. Holotype in Coll. Carter.

var. *concolor*.

One example, inseparable otherwise from the others, has its whole upper surface opaque, black, and deserves varietal distinction by name.

AUSTROLIMNIUS VARIABILIS, n.sp.

(Fig. 8.)

Elliptic, yellow to dark brown above, underside brown, antennae and tarsi testaceous—in the darker examples the femora and sometimes the tibiae also dark colour; in the pallid examples the legs are concolorous with the upper surface.

Head subvertical, enclosed in prothorax to the eyes, the width here equal to that of the apex of prothorax; eyes large, antennae slender, extending nearly to base of prothorax.

Prothorax subconic, widest at base, thence for a short way subparallel, then arcuately narrowed and deflected towards apex, this convex in surface and outline; front angles lightly produced, the posterior angles rectangular; lateral margins finely serrulate; disc with fine medial sulcus, not quite extending to apex; the usual carina separating a wide foliation from disc; surface minutely asperate.

Scutellum oval.

Elytra slightly wider than prothorax at base, ovate or lightly obovate, lateral margins serrulate throughout, the usual lateral carinae present; seriate punctate, the serial punctures small, round and well separated; intervals flat with some microscopic ground punctures. Underside very finely punctate, the prosternal process wide, its sides straight.

Dimensions: 1.1 x 0.5 mm.

Habitat: Queensland, Pine River, Petrie district (17 miles N.W. of Brisbane), Mr. L. Wassell.

Another of Mr. Wassell's discoveries shows a minute, narrowly ovate species that is close in form, size and structure to *Neosolus tropicus*, C. & Z. We are unable to distinguish the dark from the pallid examples by any structural character. These were taken in company. Holotype in Coll. Carter. Seven examples examined.

*N.B.*—The above species has led us to a reconsideration of the genus *Neosolus*, which we now think insufficiently differentiated from *Austrolimnius*, and should be eliminated as a synonym.

*Austrolimnius luridus*, C. & Z. By an oversight the dimensions of this species were omitted from our Monograph (p. 63). These are 1.2-1.4 x 0.6-0.7 mm.

#### NOTRIOLUS MINOR, n.sp.

Obovate, subnitid black; antennae and tarsi red.

Head partially enclosed in hooded thorax, antennae with four apical segments slightly wider, longer and of darker colour than the preceding, apical longest.

Prothorax, apex and base bisinuate, apical half strongly convex, widest behind middle, thence very lightly converging to the prominent subacute front angles, more evidently narrowing behind, posterior angles obtuse; foliate margins moderately wide, widening to apex; disc evenly punctate (less so than in *allynensis*, Cart.), a light transverse depression near base.

Elytra obovate, considerably wider than prothorax at base; with distinct subhorizontal margin on basal half, gradually obsolete behind, extreme border finely denticulate, especially towards apex; elytra separately rounded at apex; striate-punctate, the striae punctures round, much larger than in *allynensis*, becoming smaller posteriorly, intervals nearly flat, sparsely punctate, with a few transverse ridges on basal area.

Underside with medial area coppery brown, the rest with a paler felt-like clothing; prosternum coarsely punctate, its process with raised borders, nearly straight, lightly narrowed to its subtruncate apex.

Dimensions: 3.5 x 1.5 mm.

Habitat: New South Wales, Dorrigo (W. Heron).

Two examples examined are clearly distinct in their genus, near *N. allynensis*, Cart., but abundantly distinct by smaller size, narrower form, straighter prothorax, and much coarser seriate punctures of the elytra.

Holotype in Coll. Carter.

## DESCRIPTION OF PLATE XII.

1. *Notriolus minor*.
2. Sternal process of *Notriolus minor*.
3. *Stetholus laticeps*.
4. Sternal process of *Stetholus laticeps*.
5. Antenna of *Stetholus laticeps*.
6. *Austrolimnius atriceps*.
7. Sternal process of *Austrolimnius atriceps*.
8. *Austrolimnius variabilis*.
9. Sternal process of *Austrolimnius variabilis*.

The small figures indicate the actual size of the specimens

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## REVIEW.

## NATURE FANTASY IN AUSTRALIA.

By Alec. H. Chisholm. London. J. M. Dent & Sons, Ltd.  
(Sydney, Angus & Robertson, Ltd.). 1932. (16/6).

Once more Alec. Chisholm presents us with a charming nature narrative, and this time, recognising the value of specialisation, he gives us a pen picture of the natural beauties of a restricted area—the Hawkesbury Sandstone Area. It may be that his previous books have contained more varied pictures, but this one shows how much there is to be discovered by the trained observer in the immediate vicinity of his own home. Roaming over the ridges and descending into the gullies of the sandstone, the author shows us how and where to find the birds and flowers of the sandstone country, and how to distinguish the few areas where the Wianamatta shale influences the vegetation, and consequently the flora and the birds feeding in its branches. This study of the interrelation of soil, vegetation, and fauna is not only fascinating in itself, but is an indispensable adjunct to the wider study of nature in general. While in this book we meet with some of the friends of previous works, here we find them framed in surroundings familiar to all metropolitan dwellers, and so described and located as to make the book a valuable guide to the local bush lover. The section devoted to the Cuckoos—"the World's Strangest Parents," is a concise description of the parasitic habits of the numerous varieties of Cuckoo frequenting Sydney and suburbs, and the questions as to the origin and object of these habits furnish subject matter for ingenious theory. The book is profusely illustrated by photographs taken by the author and his naturalist friends.—A. F. B. H.

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